

W3TKQ



"W-3-THOMAS-KING-QUEEN"

To radio "hams" from Asiatic Russia to Atlantic City, these are the familiar call letters of station W3TKQ at The Franklin Institute. They were first radiated from an Institute antenna on April 5, 1952. Since then W3TKQ operators have exchanged QSL's with more than 2500 amateurs in over 90 countries and in every continent.

But aside from 'TKQ's global contacts, and the fascination this holds for the millions of Museum visitors who have witnessed it in action over the years, the station serves very useful and necessary purposes.

As a fixed-station member of the Philmont Mobile Radio Club, W3TKQ participates in emergency and civil defense communications. Out-of-town hams approaching metropolitan Philadelphia find the W3TKQ operator ready with advice and route information.

W3TKQ plays a part in the Institute's science education program. More than 100 youngsters have qualified for their novice radio licenses under the tutelage of W3TKQ operator

Mr. Nelson Schurr, W3DYP, and many have gone on to obtain their tickets as full-fledged operators.

Plans are being made for W3TKQ to add new services to amateur radio in the near future. For example, the station plans broadcasting 15 minutes of code instruction each day. Already under way is a Junior Radio Club, based at the Institute and sponsored by the Philmont club.

OPERATION

W3TKQ transmits a 1000-watt S.S.B. signal in the 10, 15, 20, 40 and 80 meter bands — sufficient signal to reach any shortwave radio station on earth. Operation is also A.M. in the 10-meter band to mobile stations and in the 2-meter band as part of the civil defense network.

Station W3TKQ is "on the air" from 10 a.m. to 5 p.m. daily except Mondays (noon to 5 p.m. Sundays). Operation is of course in full compliance with FCC and ARRL rules.

EQUIPMENT

Receipt of spanking-new transmitting and receiving gear as a gift of the Collins Radio Company of Cedar Rapids, Iowa, raises W3TKQ's available signal power from 120 watts to 1000 watts, and makes the station undoubtedly one of the finest amateur rigs in the world.

Collins, a leader in communications equipment, has donated a full set of "S-line" apparatus, housed in an attractive 7-foot walnut console.

Supplementing the Collins array is the crystal-controlled intercom for local, mobile 10-meter operation, which was custom-built for the station by members of the Philmont club.

W3TKQ's four antennas are mounted on the Institute's roof, atop a tower that raises them about 130 feet above ground. One is a rotary beam for 10, 15 and 20 meter service; another is a dipole for 40 and 80 meters; 2-meter signals are

fed to a five-element horizontal beam antenna; and mobile net signals over the 10 meter band are radiated from a coaxial, vertically polarized antenna.

AWARDS

WAC certificate (working all continents), awarded by the International Amateur Radio Union in 1956.

WAS certificate (working all states), awarded by the American Radio Relay League in 1955.

(W3TKQ will soon qualify for the ARRL 500-county certificate; 484 counties have already been logged.)

SPONSORS

The Franklin Institute & the Philmont Mobile Radio Club.

TRUSTEE

Fredwood S. Shaw, W3ADV.

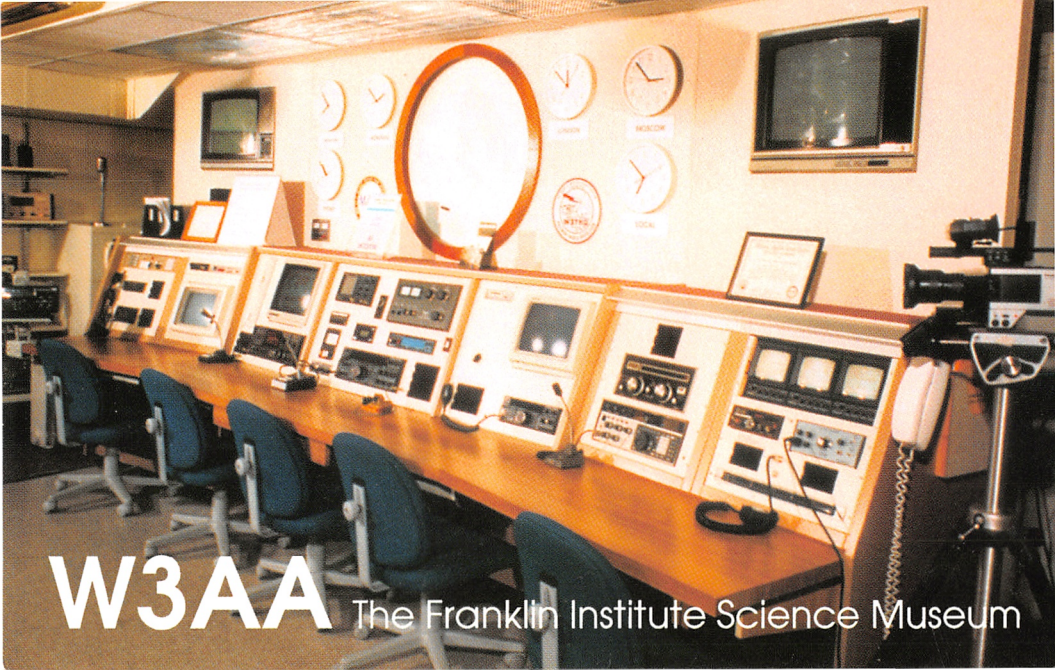
IN THE HALL OF ELECTRICAL COMMUNICATIONS OF THE SCIENCE MUSEUM
BENJAMIN FRANKLIN PARKWAY AT TWENTIETH ST., PHILADELPHIA 3, PA.





W3TKQ

The Franklin Institute Science Museum



W3AA The Franklin Institute Science Museum



W3AA (formerly W3TKQ)

The Franklin Institute Science Museum
Benjamin Franklin Parkway at 20th Street
Philadelphia, Pennsylvania 19103-1194



This major exhibit has been in daily operation since 1952. Sponsored since 1962 by The Phil-Mont Mobile Radio Club, Inc., this completely remodeled station has been seen on the cover of QST magazine, and by more than 200,000 visitors since it was formally rededicated on October 23, 1991 by Guglielmo Marconi's daughter, the late Mrs. Gioia Marconi Braga.

The seven console positions shown left to right are:

- 1- Dedicated 2 meter intercom for the club's local repeater, plus Kenwood 144MHz & 220 MHz. A Drake R8 receiver is mounted on an outrigger.
- 2- IBM computer and MFJ TNC running Alinco 1200 dedicated NTS system for visitors and locals.
- 3- Satellite tracking station: ICOM 970 and Tandy computer running "Quick Track" and "Kansas City Tracker" programs.
- 4- Kenwood 950 with PK232, TL922, monitor scope and Rupp SWR/power meter to a Mosley PRO67 10-40m beam.
- 5- Guest operating position: Kenwood TS450, computer and KAM all-mode TNC for HF/VHF packet.
- 6- Ten-Tec Omni VI with tuner to a Cushcraft R7 antenna.
- 7- ATV: WR450 transceiver, local monitors, 2m intercom, video output terminal and tripod-mounted camera.

Radio.....confirming our QSO on..... 19.....

atUTC onMHz RST.....

SSB ☐ CW ☐ FM ☐ ATV ☐ RTTY ☐ SAT ☐

Rig/Ant:

Comments:

Operator:QSL pse ☐ tnx ☐

<http://sln.fi.edu/tfi/exhibits/w3aa/html> w3aa@fi.edu

20¢
domestic
(9/96)

THE FRANKLIN INSTITUTE
PHILADELPHIA 3, PENNSYLVANIA

W3TKQ



FRED S. SHAW, W3ADV
Trustee

Sponsored by:
HAVERFORD TOWNSHIP
EMERGENCY RADIO NET



THE FRANKLIN INSTITUTE

BENJAMIN FRANKLIN PARKWAY AT TWENTIETH STREET, PHILADELPHIA, PENNSYLVANIA

W3TKQ

WAS — WAC

FRED S. SHAW W3ADV, TRUSTEE
PHILMONT MOBILE RADIO CLUB, SPONSOR

W3TKQ

THE FRANKLIN INSTITUTE

BENJAMIN FRANKLIN PARKWAY AND TWENTIETH STREET
PHILADELPHIA, PENNSYLVANIA 19103

WAS - WAC

ROLLAND E. MADARA W3PWG
TRUSTEE

OPERATORS: K3RTR, K3TEF, WA3AAL
PHILMONT MOBILE RADIO CLUB
SPONSOR

OPERATING DAILY SINCE MARCH 1952





USA

SA-CA

HAWAII

AMATEUR
RADIO

ANTENNA BEAM DIRECTION

EUROPE

LOCAL

AFRICA

AMATEUR RADIO STATION
W3TKQ

NOVICE

W3TKQ — The Museum's Ham Radio Station, sponsored by the Philmont Mobile Radio Club of Philadelphia, receives and sends messages around the world. The radio shack serves as an information center for visitors who want to learn about ham radio, FCC regulations and licensing.

**POST
CARD
RATE
STAMP**

POST CARD

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THE FRANKLIN INSTITUTE SCIENCE MUSEUM
Philadelphia, Pennsylvania

FI-7
221243

PLACE
POSTAGE
STAMP
HERE

73

Thanks QSL Please

To RADIO _____ Confirming _____
our _____ Communication of _____
19 _____ in the _____ meter
band at _____ ST. Your signals _____
were _____ Receiver _____
Transmitter _____ Watts _____
Antenna _____
Remarks: _____

THE FRANKLIN INSTITUTE

PHILADELPHIA 3, PENNSYLVANIA

W3TKQ

WAS

WAC

Fred S. Shaw, W3ADV

Trustee

Nelson R. Schurr, W3DYP

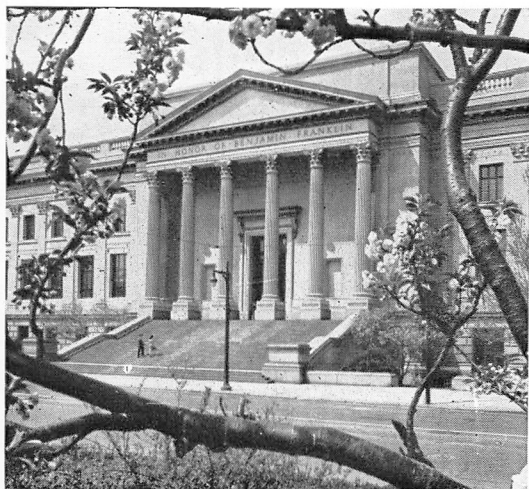
Operator



Sponsored by:

Haverford Township
Emergency Radio Net

Member: Phil-Mont Net



MAIN ENTRANCE — FACING 20TH STREET

THE FRANKLIN INSTITUTE

The Franklin Institute, one of America's foremost scientific and educational institutions, was named in honor of Benjamin Franklin. Founded in 1824 "for the Promotion of the Mechanic Arts," it houses the Franklin Memorial, the national shrine to Franklin; one of the largest technical and industrial museums in the world and the Fels Planetarium. Its technical Library and its Journal are world-famous. The Laboratories for Research and Development work in engineering and the physical sciences for industry and government. The Bartol Foundation and the Biochemical Research Foundation conduct specialized research.

W3TKQ

W3TKQ is located in the Hall of Electrical Communications of the Museum. The antennas, located on the roof, consist of 3 element 20 and 10 meter beams and a 5 element vertical, 2 meter beam, all on a 40 foot tower, and a 136 foot Windom Antenna.



— AMATEUR RADIO STATION W3TKQ —

The Franklin Institute, established in 1824, is one of the country's finest science museums. It provides visitors from all parts of the world with fantastic demonstrations and experiences in many fields of science and technology.

W3TKQ, a fully equipped amateur radio station, donated and sponsored by the Philmont Mobile Radio Club in 1952, is in daily operation by club members, providing Franklin Institute visitors an insight into the world of amateur radio.



Hear Ye!

Hear Ye!

Let it be known to all persons
that on the 17th day of January,
in the year 1982, that day being
the 276th Birthday of
Benjamin Franklin

(ARS)

did at _____ UTC, on _____ Mhz
engage in two way SSB/FM contact with

W3TKQ

resulting in a report of _____ .

THE FRANKLIN INSTITUTE
BENJAMIN FRANKLIN PARKWAY AND TWENTIETH STREET
PHILADELPHIA, PENNSYLVANIA 19103